

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1, 3-17, 19-31, and 33-40 are pending in this application.

35 U.S.C. § 102

Claims 1-7, 10-11, 14-16, 18-22, 27-30, and 32-38 stand rejected under 35 U.S.C. §102(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0198972 to Babbitt et al. (hereinafter “Babbitt”). Applicant respectfully submits that claims 1, 3-7, 10-11, 14-16, 19-22, 27-30, and 33-38 are not anticipated by Babbitt.

Babbitt is directed to a pre-boot multicast address management protocol for a computer network (see, title and page 1, paragraph 2). Babbitt discusses that the client begins the process of booting by first obtaining the necessary operating system files from a file server process on an intranet, a process that is called pre-boot (see, page 1, paragraph 5). The pre-boot process begins when the client computer is switched on and firmware on the client begins negotiating with an addressing server process to obtain a network address for the client on the intranet (see, page 1, paragraph 6). Once the client has obtained a network address, the pre-boot process continues with the client making a request to a boot negotiation server process for a multicast address (see, page 1, paragraph 7). The multicast address is the location on the intranet where the client can obtain boot information needed to boot the client with the desired operating system (see, page 1, paragraph 8). The client goes to the multicast address and listens for a period of time,

waiting for a file server process to begin multicasting the desired boot information (see, page 1, paragraph 10).

With respect to claim 1, claim 1 recites:

An apparatus configured to manage installation of operating systems on a plurality of computing devices, wherein the installation is performed across the plurality of computing devices both concurrently and asynchronously, wherein the installation comprises transferring multiple portions of data to each of the plurality of computing devices, and wherein some of the multiple portions are transferred to the plurality of computing devices concurrently and other of the multiple portions are transferred to the plurality of computing devices asynchronously, and wherein the portions that are transferred to the plurality of computing devices asynchronously include one or more programs to be executed on the plurality of computing devices to configure the plurality of computing devices.

Applicant respectfully submits that the pre-boot process of Babbitt does not disclose the apparatus of claim 1.

In the June 16, 2005 Office Action at ¶ 3, pp. 2-3, it was asserted that:

Babbitt disclosed an apparatus . . . wherein the portions that are transferred to the plurality of computing devices asynchronously include one or more programs to be executed on the plurality of computing devices to configure the plurality of computing devices (*page 1, paragraphs 5-10, messages and commands to receive addresses to configure client*).

It was further asserted at ¶ 10, p. 18 that:

First, the messages and commands concerning addresses sent to the plurality of devices in Babbitt constitute a program under the broadest reasonable interpretation (supported by Applicant's specification page 8, lines 16-20). A program is simply instructions for configuring.

Thus, the messages and commands to receive addresses to configure client discussed at page 1, paragraphs 5-10 of Babbitt are being relied on as disclosing

the one or more programs to be executed on the plurality of computing devices to configure the plurality of computing as recited in claim 1.

The cited portions of Babbitt discuss a pre-boot process that begins when the client computer connected to the intranet is switched on (see, p. 1, paragraph 6). Firmware on the client begins negotiating with an address server process to obtain a network address for the client (see, p. 1, paragraph 6). Once the client has obtained a network address (such as an IP address), the pre-boot process continues with the client making a request to a boot negotiation server process for a multicast address (see, p. 1, paragraph 7). The request contains the IP address of the client and the type of operating system that the client wants to use (see, p. 1, paragraph 7). The boot negotiation server process determines at which multicast address the boot information for the desired operating system is being multicast (see, p. 1, paragraph 7). This multicast address is then transmitted to the client (see, p. 1, paragraph 7). Once the multicast address corresponding to the boot information desired by the client has been obtained, the client then goes to the multicast address listens for the boot information (see, p. 1, paragraph 7).

Applicant respectfully submits that nowhere in the cited portions of Babbitt, or elsewhere in Babbitt, is there any discussion or mention that portions that are transferred to the plurality of computing devices asynchronously include one or more programs to be executed on the plurality of computing devices to configure the plurality of computing devices as recited in claim 1. The cited portions of Babbitt discuss that the client receives an IP address that gives the client a location on the intranet and tells others on the intranet where to find the client (see, p. 1, paragraph 6). The cited portions of Babbitt also discuss that the

client receives a multicast address where the client listens for boot information (see, p. 1, paragraph 7). A multicast address is a specialized form of an IP address (see, p. 1, paragraph 8). Applicant respectfully submits that an IP address is not one or more programs to be executed on a plurality of computing devices to configure the plurality of computing devices. An IP address is simply that – an address. An IP address is not itself a program that can be executed on a plurality of computing devices to configure the plurality of computing devices.

In addition, in the cited portion of Babbitt the only thing that is sent to the clients asynchronously is the IP addresses. There are no other messages discussed in the cited portion of Babbitt that are sent to the clients asynchronously, much less any messages that are one or more programs to be executed on a plurality of computing devices to configure the plurality of computing devices as recited in claim 1.

Accordingly, Applicant respectfully submits that Babbitt does not disclose that the portions that are transferred to the plurality of computing devices asynchronously include one or more programs to be executed on the plurality of computing devices to configure the plurality of computing devices as recited in claim 1.

Given that claims 3-7 depend from claim 1, Applicant respectfully submits that claims 3-7 are likewise allowable over Babbitt for at least the reasons discussed above with respect to claim 1.

With respect to claim 10, Applicant respectfully submits that, similar to the discussion above regarding claim 1, Babbitt does not disclose performing a first portion of an installation process on each of the plurality of computing devices

asynchronously across the plurality of computing devices, wherein performing the first portion comprises downloading one or more programs to each of the plurality of computing devices to be executed on the plurality of computing devices to configure the plurality of computing devices as recited in claim 10. For at least these reasons, Applicant respectfully submits that claim 10 is allowable over Babbitt.

Given that claim 11 depends from claim 10, Applicant respectfully submits that claim 11 is likewise allowable over Babbitt for at least the reasons discussed above with respect to claim 10.

With respect to claim 14, Applicant respectfully submits that, similar to the discussion above regarding claim 1, Babbitt does not disclose one or more computer readable media having stored thereon a plurality of instructions that causes the one or more processors to control installation of the operating systems on the plurality of computing devices asynchronously and in parallel, wherein the installation comprises transferring multiple portions of data to each of the plurality of computing devices, and wherein some of the multiple portions are transferred to the plurality of computing devices in parallel and other of the multiple portions are transferred to the plurality of computing devices asynchronously, and wherein the portions that are transferred to the plurality of computing devices asynchronously include one or more programs to be executed on the plurality of computing devices to configure the plurality of computing devices as recited in claim 14. For at least these reasons, Applicant respectfully submits that claim 14 is allowable over Babbitt.

Given that claims 15, 16, and 19-22 depend from claim 14, Applicant respectfully submits that claims 15, 16, and 19-22 are likewise allowable over Babbitt for at least the reasons discussed above with respect to claim 14.

With respect to claim 27, Applicant respectfully submits that, similar to the discussion above regarding claim 1, Babbitt does not disclose controlling, in parallel and asynchronously, installation of the operating systems on the plurality of devices, wherein the installation comprises transferring multiple portions of data to each of the plurality of devices, and wherein some of the multiple portions are transferred to the plurality of devices in parallel and other of the multiple portions are transferred to the plurality of devices asynchronously, and wherein the portions that are transferred to the plurality of computing devices asynchronously include one or more programs to be executed on the plurality of computing devices to configure the plurality of computing devices as recited in claim 27. For at least these reasons, Applicant respectfully submits that claim 27 is allowable over Babbitt.

Given that claims 28-30 and 33-36 depend from claim 27, Applicant respectfully submits that claims 28-30 and 33-36 are likewise allowable over Babbitt for at least the reasons discussed above with respect to claim 27.

With respect to claim 37, Applicant respectfully submits that, similar to the discussion above regarding claim 1, Babbitt does not disclose means for performing a first portion of an installation process on each of the plurality of computing devices asynchronously across the plurality of computing devices, wherein the means for performing the first portion comprises means for downloading one or more programs to each of the plurality of computing devices

to be executed on the plurality of computing devices to configure the plurality of computing devices as recited in claim 37. For at least these reasons, Applicant respectfully submits that claim 37 is allowable over Babbitt.

Given that claim 38 depends from claim 37, Applicant respectfully submits that claim 38 is likewise allowable over Babbitt for at least the reasons discussed above with respect to claim 37.

Applicant respectfully requests that the §102 rejections be withdrawn.

35 U.S.C. § 103

Claims 8 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Babbitt in view of WIPO Publication Number WO 01/16701 to GLAXO Group Limited (hereinafter “Glaxo”). Applicant respectfully submits that claims 8 and 23 are not obvious over Babbitt in view of Glaxo.

Glaxo is directed to remote installation of operating systems (see, Title). As discussed in the Abstract of Glaxo, and in more detail at page 7, line 12 to page 8, line 2, Glaxo describes a method of installing a computer operating system from a network to a computer and configuring the computer for use on the network or on another network. An installation routine is run which accepts an input of a build location and a delivery location, interrogates an environment database with the build location and the delivery location to obtain one or more build specific variables and one or more delivery specific variables. The installation routine also determines the computer type and installed hardware components, accesses the network using the build specific variables, and copies a master installation script from an operating system installation source stored on the network. Still further,

the installation routine modifies the copied installation script in dependence on the build specific variables, delivery specific variables, detected computer type and hardware components to create a dedicated installation script. The computer operating system is subsequently automatically installed using the dedicated installation script. The installation process may also include the step of registering the computer with the network where it is to be used upon so that it is ready for immediate use at the delivery location.

With respect to claim 8, claim 8 depends from claim 1 and Applicant respectfully submits that claim 8 is allowable over Babbitt for at least the reasons discussed above with respect to claim 1. Glaxo is not cited as curing, and does not cure, the deficiencies of Babbitt discussed above with respect to claim 1.

Furthermore, claim 8 recites:

An apparatus as recited in claim 1, wherein the apparatus further comprises a network boot service to:

receive, from one of the plurality of computing devices, information describing hardware installed on the computing device; and

use the received information to generate a deployment agent to be downloaded to the computing device and used to install the operating system on the computing device.

Applicant respectfully submits that Babbitt in view of Glaxo does not disclose or suggest the receipt and use as recited in claim 8.

In contrast, in Glaxo a master installation script held with the computer operating system installation source on the network data store is copied onto the disk memory of the computer workstation, and the copy of the installation script is then modified in dependence on the build location specific variables, on the delivery location specific variables and on the computer workstation variables to

create a dedicated installation script (see, page 7, lines 26-31). Thus, in Glaxo the master installation script is modified after it is copied to the computer workstation. In claim 8, however, the received information is used to generate the deployment agent to be downloaded to the computing device, so the received information is used to generate the deployment agent prior to downloading of the deployment agent to the computing device. Applicant respectfully submits that there is no discussion or mention in Glaxo of modifying the installation script of Glaxo prior to copying the installation script to the workstation of Glaxo.

In the June 16, 2005 Office Action at ¶ 10, pp. 18-19, it was asserted that:

Second, as made clear by Babbitt the plurality of computing devices use firmware to start the booting process (page 1, paragraph 5). Additional installation software arrives from other sources. Glaxo describes additional installation software. In the properly motivated combination of Babbitt and Glaxo, the installation software provided by Glaxo comes from a remote source as suggested by Babbitt.

Even if Babbitt and Glaxo were combined, there is no discussion or mention in the combination of the master installation script of Glaxo being modified before it is copied to the computer workstation. In Babbitt, the boot information contains the desired operating system files to be multicast (see, p. 1, paragraph 5). But when multicasting, multiple clients listen on a multicast address and obtain the data simultaneously when a file server process transmits the data (see, p. 1, paragraph 8). Thus, when multicasting the same boot information is transmitted to all of the clients because they are all listening on the same multicast address. As such, there could not be any client-specific modification of this boot information as discussed in Glaxo prior to multicasting the boot information because the boot information

would no longer be the same for all of the multiple clients and thus could not be multicast to the clients.

Thus, Applicant respectfully submit that there is no disclosure or suggestion in Babbitt, Glaxo, or the combination of Babbitt and Glaxo of the use of received information to generate a deployment agent to be downloaded to the computing device and used to install the operating system on the computing device as recited in claim 8.

With respect to claim 23, claim 23 depends from claim 14 and Applicant respectfully submits that claim 23 is allowable over Babbitt for at least the reasons discussed above with respect to claim 14. Glaxo is not cited as curing, and does not cure, the deficiencies of Babbitt discussed above with respect to claim 14. Furthermore, Applicant respectfully submits that, similar to the discussion above regarding claim 8, Babbitt in view of Glaxo does not disclose or suggest receipt of information describing hardware installed on a computing device and use of the received information to generate a deployment agent to be downloaded to the computing device and used to install the operating system on the computing device as recited in claim 23. For at least these reasons, Applicant respectfully submits that claim 23 is allowable over Babbitt in view of Glaxo.

Claims 9, 13, and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Babbitt in view of U.S. Patent No. 6,687,902 to Curtis et al. (hereinafter “Curtis”). Applicant respectfully submits that claims 9, 13, and 26 are not obvious over Babbitt in view of Curtis.

With respect to claim 9, claim 9 depends from claim 1 and Applicant respectfully submits that claim 9 is allowable over Babbitt for at least the reasons

discussed above with respect to claim 1. Curtis is not cited as curing, and does not cure, the deficiencies of Babbitt discussed above with respect to claim 1. For at least these reasons, Applicant respectfully submits that claim 9 is allowable over Babbitt in view of Curtis.

With respect to claim 13, claim 13 depends from claim 10 and Applicant respectfully submits that claim 13 is allowable over Babbitt for at least the reasons discussed above with respect to claim 10. Curtis is not cited as curing, and does not cure, the deficiencies of Babbitt discussed above with respect to claim 10. For at least these reasons, Applicant respectfully submits that claim 13 is allowable over Babbitt in view of Curtis.

With respect to claim 26, claim 26 depends from claim 14 and Applicant respectfully submits that claim 26 is allowable over Babbitt for at least the reasons discussed above with respect to claim 14. Curtis is not cited as curing, and does not cure, the deficiencies of Babbitt discussed above with respect to claim 14. For at least these reasons, Applicant respectfully submits that claim 26 is allowable over Babbitt in view of Curtis.

Claims 12, 24, and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Babbitt in view of Glaxo and further in view of U.S. Patent No. 6,236,983 to Hofmann et al. (hereinafter “Hofmann”). Applicant respectfully submits that claims 12, 24, and 25 are not obvious over Babbitt in view of Glaxo and further in view of Hofmann.

With respect to claim 12, Applicant respectfully submits that, similar to the discussion above regarding claim 8, Babbitt in view of Glaxo does not disclose or suggest downloading, to each of the plurality of computing devices, a deployment

agent, wherein the deployment agent downloaded to a particular computing device is generated based on the received information regarding the particular computing device as recited in claim 12. Hofmann is not cited as curing, and does not cure, these deficiencies of Babbitt in view of Glaxo.

Furthermore, Applicant respectfully submits that there is no disclosure or suggestion in Babbitt, Glaxo, or Hofmann, or the combination thereof, of downloading a deployment agent loader and downloading a deployment agent asynchronously (as part of the first portion) as recited in claim 12. Babbitt is cited in the August 16 Office Action as disclosing performing installation across a plurality of computing devices both concurrently and asynchronously. However, as discussed above, Babbitt describes the client making a request to a boot negotiation server process for a multicast address, and then going to the multicast address and listening for the boot information. Thus, obtaining this multicast address is the only part of Babbitt that could be considered as being performed asynchronously. This multicast address, however, is simply an IP address. There is no discussion or mention in Babbitt that any program is downloaded asynchronously, much less of a deployment agent loader and deployment agent being downloaded asynchronously.

Glaxo and Hofmann are not cited as disclosing or suggesting, and do not disclose or suggest, performing such downloading as part of an asynchronous (first) portion of an installation process rather than a concurrent (second) portion of the installation process. Accordingly, as none of Babbitt, Glaxo, and Hofmann disclose downloading a deployment agent loader and downloading a deployment agent asynchronously, Applicant respectfully submits that Babbitt in view of

Glaxo and further in view of Hofmann cannot disclose or suggest downloading a deployment agent loader and downloading a deployment agent asynchronously as recited in claim 12.

For at least these reasons, Applicant respectfully submits that claim 12 is allowable over Babbitt in view of Glaxo and further in view of Hofmann.

With respect to claim 24, Applicant respectfully submits that, similar to the discussion above regarding claim 8, Babbitt in view of Glaxo does not disclose or suggest dynamically generating a deployment agent for the one computing device based at least in part on the hardware installed on the one computing device, and downloading the dynamically generated deployment agent to the one computing device as recited in claim 24. Hofmann is not cited as curing, and does not cure, these deficiencies of Babbitt in view of Glaxo. For at least these reasons, Applicant respectfully submits that claim 24 is allowable over Babbitt in view of Glaxo and further in view of Hofmann.

Given that claim 25 depends from claim 24, Applicant respectfully submits that claim 25 is likewise allowable over Babbitt in view of Glaxo and further in view of Hofmann for at least the reasons discussed above with respect to claim 24.

Claims 17 and 31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Babbitt in view of U.S. Patent No. 6,763,456 to Agnihotri et al. (hereinafter “Agnihotri”). Applicant respectfully submits that claims 17 and 31 are not obvious over Babbitt in view of Agnihotri.

With respect to claim 17, claim 17 depends from claim 14 and Applicant respectfully submits that claim 17 is allowable over Babbitt for at least the reasons discussed above with respect to claim 14. Agnihotri is not cited as curing, and

does not cure, the deficiencies of Babbitt discussed above with respect to claim 14. For at least these reasons, Applicant respectfully submits that claim 17 is allowable over Babbitt in view of Agnihotri.

With respect to claim 31, claim 31 depends from claim 27 and Applicant respectfully submits that claim 31 is allowable over Babbitt for at least the reasons discussed above with respect to claim 27. Agnihotri is not cited as curing, and does not cure, the deficiencies of Babbitt discussed above with respect to claim 27. For at least these reasons, Applicant respectfully submits that claim 31 is allowable over Babbitt in view of Agnihotri.

Claims 39 and 40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Babbitt in view of U.S. Patent Application Publication No. 2002/0161868 to Paul (hereinafter “Paul”). Applicant respectfully submits that claims 39 and 40 are not obvious over Babbitt in view of Paul.

Paul is directed to a method and system for fault-tolerant remote boot in the presence of boot server overload/failure with self-throttling boot servers (see, Title). As discussed in the Abstract of Paul, a method and system are presented for facilitating a PXE-compliant (Preboot Execution Environment) remote boot process between clients and multiple available servers on a network. Each server device can respond to a PXE-extended DHCP (Dynamic Host Configuration Protocol) Request message from any client device on the network. Each client can receive responses from the alternate servers, select a server from one of those responses, and be directed by that response to complete the remote boot process from the same server. Each server also employs a self-throttling process to prevent the server from responding to new PXE-extended DHCP request messages

from additional clients while the server has insufficient resources to remote boot additional clients with the required quality of service. This automatically redirects those additional clients to other servers that can provide the required quality of service without affecting the remote boot of clients already being serviced by the server.

With respect to claim 39, Applicant respectfully submits that there is no disclosure or suggestion in Babbitt in view of Paul that one or more programs are executed on the plurality of computing devices to set one or more BIOS parameters on the plurality of computing devices as recited in claim 39. Babbitt is cited in the August 16 Office Action as disclosing performing installation across a plurality of computing devices both concurrently and asynchronously. However, as discussed above, Babbitt describes the client making a request to a boot negotiation server process for a multicast address, and then going to the multicast address and listening for the boot information. Thus, obtaining this multicast address is the only part of Babbitt that could be considered as being performed asynchronously. This multicast address, however, is simply an IP address. There is no discussion or mention in Babbitt that any program is downloaded asynchronously, much less of a program to set one or more BIOS parameters being downloaded asynchronously. The disclosure of a BIOS in Paul, or of obtaining an IP address as discussed at p. 3, paragraph 33 of Paul, does not cure this deficiency of Babbitt because there is no disclosure or suggestion that one or more programs to set one or more BIOS parameters would be communicated to the clients of Babbitt as an IP address. For at least these reasons, Applicant respectfully submits that claim 39 is allowable over Babbitt in view of Paul.

With respect to claim 40, Applicant respectfully submits that there is no disclosure or suggestion in Babbitt in view of Paul that one or more programs are executed on the plurality of computing devices to set one or more RAID parameters on the plurality of computing devices as recited in claim 40. Babbitt is cited in the August 16 Office Action as disclosing performing installation across a plurality of computing devices both concurrently and asynchronously. However, as discussed above, Babbitt describes the client making a request to a boot negotiation server process for a multicast address, and then going to the multicast address and listening for the boot information. Thus, obtaining this multicast address is the only part of Babbitt that could be considered as being performed asynchronously. This multicast address, however, is simply an IP address. There is no discussion or mention in Babbitt that any program is downloaded asynchronously, much less of a program to set one or more RAID parameters being downloaded asynchronously. Official Notice being taken that RAID is a commonly used hardware scheme, does not cure this deficiency of Babbitt because there is no disclosure or suggestion that one or more programs to set one or more RAID parameters would be communicated to the clients of Babbitt as an IP address. For at least these reasons, Applicant respectfully submits that claim 40 is allowable over Babbitt in view of Paul.

Applicant respectfully requests that the §103 rejections be withdrawn.

Conclusion

Claims 1, 3-17, 19-31, and 33-40 are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application.

Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

Date: 8/16/05

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